

A GUIDE TO THE CRABS (CRUSTACEA: DECAPODA) OF THE AVON - HEATHCOTE ESTUARY, CANTERBURY

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ABSTRACT

A key and checklist to ten species of crabs (Crustacea: Decapoda) of the Avon-Heathcote Estuary (172°44'E, 43°32'S) is given.

INTRODUCTION

Morgans (1969) listed eight species in a key of crabs (Crustacea: Decapoda) from the Avon-Heathcote Estuary, Canterbury, New Zealand (grid reference 172°44'E, 43°32'S). The key presented here revised Morgans' key, as it adds two more species recorded by Thomson in 1929, and incorporates recent nomenclatural changes (Barnes 1967, Stephenson 1972). Changes in the characters used in some couplets, and restructure of Morgans' (1969) couplets, simplify this key. The illustrations are based on Dell (1968) and Melrose (1968).

KEY

1. Antennae longer than carapace, three pairs of walking legs, (Fig. 1). Anomura - false crabs *Petrolisthes elongatus*
Not as above (Brachyura - true crabs) 2
2. Sides of carapace parallel (Figs 2 and 3) 3
Not as above 4
3. Length of eyestalk less than width of inter-orbital region, 2 pairs of well developed lateral spines on carapace, no setal fringe on walking legs, (Fig. 2) *Helice crassa*
Length of eyestalk about the same as width of interorbital region, 3 pairs of well developed lateral spines on carapace, (Fig. 3) *Macrophthalmus hirtipes*
4. Setal fringes on front edge of all 4 pairs of walking legs (less obvious in female than male), interorbital region finely crenulated, 3 pairs of lateral spines on carapace, (Fig. 4) *Hemigrapsus crenulatus*
Not as above 5

5. Carapace smooth with no lateral spines, interorbital region straight, sides of carapace strongly curved, (Fig. 5) *Cyclograpsus lavauxi*
Not as above 6
6. 5 pairs of lateral spines on carapace, terminal segments of last pair of walking legs flattened and paddle-like, (Fig. 6) *Ovalipes catharus*
Not as above 7
7. Carapace domed 8
Carapace flat or only slightly domed 9
8. Carapace circular, normally found in mussels (Bivalvia: Mytilidae) *Pinnotheres novaezealandiae*
Carapace elliptical, (Fig. 7) *Cancer novaezealandiae*
9. Carapace continuous behind eyes, rostrum arising below level of carapace, (Fig. 8) *Halicarcinus innominatus*
Carapace only separated from rostrum by a suture, (Fig. 9) *Halicarcinus whitei*

CHECKLIST

References after each species name are in order as follows: authority, full description of species, recent papers on ecology. Preliminary data on the distribution and requirements of the common species have been collated by Jones (1976).

Section Anomura (false or half-crabs)

Family Porcellanidae

Petrolisthes elongatus (Milne-Edwards 1837). Bennett 1932.

Section Brachyura (true crabs)

Family Hymenosomatidae

Halicarcinus innominatus Richardson 1949. Melrose 1968. Not recently recorded from the estuary.

Halicarcinus whitei (Miers 1876). Melrose 1968.

Family Cancridae

Cancer novaezealandiae (Jaquinot 1853). Bennett 1964.

Family Portunidae

Ovalipes catharus (White 1853). Stephenson 1972.

Family Pinnotheridae

Pinnotheres novaezealandiae Filhol 1886. Scott 1961.

Family Grapsidae

Hemigrapsus crenulatus (Milne-Edwards 1837). Bennett 1964.
Hicks 1973.

Helice crassa Dana 1851. Bennett 1964. Beer 1959.

Cyclograpsus lavauxi Milne-Edwards 1853. Dell and Marshall 1967.
Bacon 1971.

Family Ocypodidae

Macrophthalmus hirtipes (Jaquinot 1853). Barnes 1967. Nye 1974.

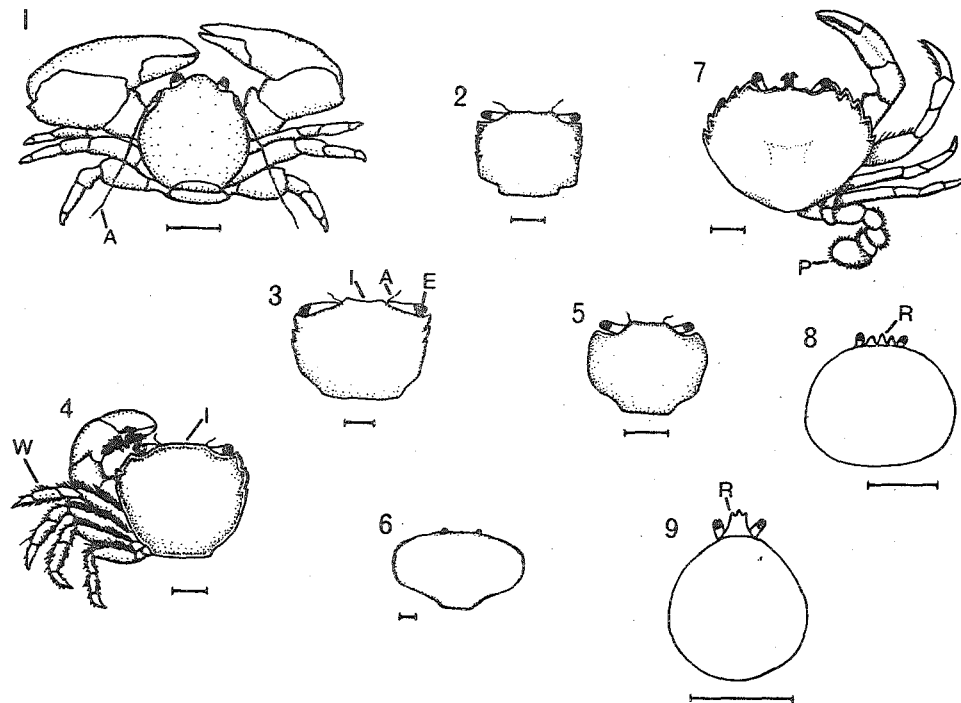


Fig. 1, *Petrolisthes elongatus*. Fig. 2, *Helice crassa*. Fig. 3, *Macrophthalamus hirtipes*. Fig. 4, *Hemigrapsus crenulatus*. Fig. 5, *Cyclograpsus lavauxi*. Fig. 6, *Cancer novaezelandiae*. Fig. 7, *Ovalipes catharus*. Fig. 8, *Halicarcinus innominatus*. Fig. 9, *Halicarcinus whitei*. Abbreviations: A, antenna; E, eyestalk; I, interorbital region; P, paddle-like leg; R, rostrum; W, walking leg. Scale bars are 10 millimetres.

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